

**REMARKS**

As an initial note, the Applicants wish to thank the Examiner for pointing out the informalities identified in page 2, para. 1, of the Office Action (paper 22). The Applicants have amended Claims 1, 4, 7, and 10, accordingly. The Applicants have also amended Claims 1-9. These amendments are made without prejudice as to patentability including the doctrine of equivalents. The Applicants have also added new Claims 13-17. The Applicants have also made minor amendments to the specification. A courtesy substitute specification is provided. The Applicants have also amended FIGS. 1, 2, 3, 14 and 15. A marked up copy of FIGS. 1, 2, 3, 14 and 15 showing the changes circled in red are submitted herewith, together with a clean copy of Figures 1-15 to be substituted in place of the Figures originally filed. The Applicants submit that these minor amendments and corrections herein are made without prejudice, were not necessary to overcome the cited reference, and that no new matter has been added.

**Claims 1-3, and 5-9 are not Anticipated or Obvious.**

The Examiner rejected Claims 1-3, and 5-9 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,601,710 by Moll. The Applicants respectfully traverse the rejection.

Moll describes a trocar assembly 2 that includes a trocar 4 and a trocar tube 6. *See* FIG. 2. The trocar 4 includes: a tubular body 8 having open distal and proximal ends 12, 14; a uniformly sized elongate shaft 18 positioned within body 8; a piercing tip 16 connected to the distal end of shaft 18; an endcap 20 connected to the proximal end of shaft 18; a protective shield 30 slidably connected within the distal end 12 of tubular body 8 to protect piercing tip 16; and a spring 44 extending between the endcap 20 and the protective shield 30. *See* col. 2, lines 29-58, and FIGS. 2 and 3.

Referring to FIGS. 2-3, and col. 2, lines 38-46, the piercing tip 16 is adhesively connected within bore 28 of the distal end of shaft 18 through use of a peg 26. The piercing tip 16 includes three blades 22, each having a cutting edge 21 extending between a common tip 23 and an outer end 19 having a proximal shoulder 25. Referring to FIGS. 4, 5A, and 5B, the

protective shield 30 has a central bore 32 which allows slidable movement along shaft 18 and a cylindrical outer surface 37 which allows slidable movement within body 8. *See* col. 2, line 55 to col. 3, line 2. The shield 30 has three radially extending slots 40 extending from the front end 42 of protective shield 30 which define three fingers 41. *See* col. 2, lines 62-65. Blades 22 are housed within slots 40 and between fingers 41. *See* col. 2, lines 65-66. As shown in FIG. 4, the slots 40 are sized just large enough to accommodate the blades 22. When the shield 30 is fully extended, the shoulder 25 of each blade 22 abuttingly contacts a corresponding base 47 of slots 40 in the protective shield 30, forming a distal (forward) protective shield stop. *See also* col. 3, lines 8-9. As shown in FIG. 5B and as illustrated by the dashed line of FIG. 2 showing the extent of bore 32 inside shield 30, an aft protective shield stop is provided by fingers 41 contacting the distal-most surface of shaft 18, apparently to prevent excessive retraction of the protective shield 30. Referring to FIG. 3, the endcap 20 has a proximal end and a distal end with the distal end having a smaller diameter than the proximal end. The proximal end of shaft 18 is adhesively connected within a bore 27 in the endcap 20. *See* col. 2, lines 43-46. The spring 44 is positioned around the length of the elongate shaft 18 and is captured between the enlarged region 34 of piercing tip 16 and the distal outer surface of the distal portion of endcap 20. *See also* col. 3, lines 3-8.

Moll does not, however, disclose, teach, or suggest: a shield slidably mounted to a medial portion of the trocar body and having a diameter being equal to or less than the diameter of a proximal portion of an elongate trocar body; or a shoulder extending radially inwardly from an inner surface of the shield body to define a shield stop positioned to provide a stop for the shield body when in an extended position. Moll also does not disclose, teach, or suggest an elongate shaft including a medial portion having first and second sections having different diameters; nor biasing means extending between and in contact with a distal portion of the first section of the medial portion of the trocar body and a proximal portion of a shield stop. Moll further does not disclose, teach, or suggest a transition region defining or forming an aft shield stop when the shield is biased to the retracted position. Still further, as noted by the Examiner's allowance of Claim 4 and Claims 10-12, Moll does not disclose, teach, or suggest a shield stop connected to the trocar body that cooperates with the shield body to provide an auxiliary stop for

the shield body when moving to the retracted position.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, described in a single prior art reference, whereby the identical invention must be shown in as complete detail as is contained in the claim. Similarly regarding obviousness, a *prima facie* case for obviousness requires that the prior art reference(s) must teach or suggest all the claim limitations.

Regarding Claims 1 and 7, Moll does not disclose, teach, or suggest a shoulder extending radially inwardly from an inner surface of a shield body to define a shield stop positioned to provide a stop for the shield body when in an extended position, or a shield, slidably mounted to a medial portion of the trocar body, having a diameter being equal to or less than the diameter of a proximal portion of an elongate trocar body. The Examiner identified the piercing tip 16 (apparently shoulders 25 of the blades 22) as cooperating with the base 47 of slot 40 to perform the function of providing a stop for shield 30. The Applicants agree that the shoulder 25 of each blade 22 can abuttingly contact a corresponding base 47 of slot 40 in the protective shield 30, forming a distal (forward) protective shield stop. Claim 1, however, features a shoulder (51) that extends radially inwardly from an inner surface of a shield body (47). Moll's base 47 is not a shoulder that extends radially inwardly from an inner surface of a shield body. Use of an inwardly extending shoulder rather than machining or otherwise forming slots into a protective shield to form a stop is an important feature that allows the distal end of the shield to better coveringly protect the sharpened distal end.

Further, although the Examiner identified the small diameter portion of the endcap 20 as being the proximal portion of an elongate trocar body, it is, in fact, a distal portion of the endcap 20 that allows for placement of fingers over the proximal portion of endcap 20 and is not, in fact, a proximal portion of the elongate shaft 18. Correspondingly, because elongate shaft 18 has a uniform diameter as shown in FIG. 3, shield 30 has a diameter larger than, rather than equal to or less than, that of the proximal portion of elongate shaft 18.

With respect to new Claim 14, Moll does not disclose, teach, or suggest: a medial portion

of an elongate trocar body including a first section having a first diameter and a second section having a second diameter smaller than the first diameter; a proximal portion having a proximal first end portion, a proximal second end portion having a third diameter larger than the first diameter, and an elongate body portion extending between the proximal first end portion and the proximal second end portion; or a transition region located between the first section of the medial portion having the first diameter and the proximal portion having the third larger diameter to define a shield stop positioned to provide a stop for the shield body when in a fully retracted position. As illustrated in FIGS. 2 and 3, shaft 18 is of a uniform diameter. Further, even if the distal end of endcap 20 were considered a proximal end of shaft 18, the remaining portion of shaft 18 does not have two sections having different diameters which allow for positioning of the biasing means.

Thus, the Moll reference does not disclose, teach, or suggest all claim limitations. Therefore, in accordance with the above discussion, the Applicants respectfully submit that Claims 1, 7, and new Claim 14 are not anticipated by or obvious in view of Moll and should be held allowable along with the corresponding dependent claims. The Applicants respectfully request that the Examiner withdraw the rejection. Further, the dependent Claims 2, 3, 5, 6, 8, and 9, and new dependent Claims 15-17 include independently novel features.

Regarding Claims 2, 5, 8, and new Claim 15, Moll also does not disclose, teach, or suggest an elongate shaft including a medial portion having first and second sections having different diameters. Elongate shaft 18 is illustrated in FIGS. 2 and 3 as instead having a uniform diameter. Further, regarding Claims 2, 8, and a new Claim 15, Moll also does not disclose, teach, or suggest biasing means extending between and in contact with a distal portion of the first section of the medial portion of the trocar body and a proximal portion of the *shield stop* (defined in Claim 1). The Moll spring 44 instead extends between endcap 20 and the enlarged region 34 of bore 32 located at the proximal end of the protective shield 30.

Regarding Claims 3 and 9, Moll does not teach or suggest a transition region defining or forming an aft (proximal) shield stop when the shield is biased to the retracted position, or that the shield body is biased such that the shield body contacts the aft (proximal) shield stop when

in a fully retracted position. Even if one were to somehow consider the surface of the endcap 20 which engages spring 44 as being the claimed transition region, as shown in FIG. 5B and the dashed line of FIG. 2 illustrating the extent of bore 32 inside shield 30, at best, an aft protective shield stop is provided by fingers 41 of the shield 30 contacting the distal portion of the elongate shaft 18, rather than a transition region between the medial portion and the proximal portion of the trocar body.

Regarding Claims 6 and new Claim 16, as noted by the Examiner's allowance of Claim 4 and Claims 10-12, Moll does not disclose, teach, or suggest a shield stop connected to the trocar body that cooperates with the shield body to provide an auxiliary stop for the shield body when moving to the retracted position.

Please note, in commenting upon the reference and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the reference and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions or making any amendments herein to create any implied limitations in the claims. Not all of the distinctions between the prior art and Applicants' present invention have been made by Applicants. For the foregoing reasons, the Applicants reserve the right to submit additional evidence showing the distinctions between Applicants' invention to be novel and nonobvious in view of the prior art.

The foregoing remarks are intended to assist the Examiner in re-examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered to be exhaustive of the facets of the invention that render it patentable, being only examples of certain advantageous features and differences which Applicants' attorney chooses to mention at this time.

**CONCLUSION**

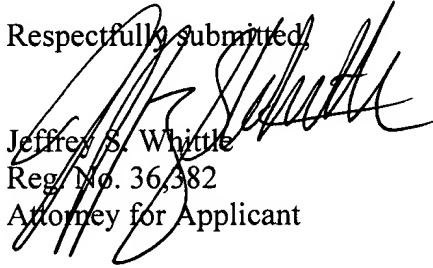
In view of the amendments and remarks set forth herein, Applicants respectfully submit that the application is in condition for allowance. Accordingly, the issuance of a Notice of Allowance in due course is respectfully requested.

Date: \_\_\_\_\_

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FIG. 2.

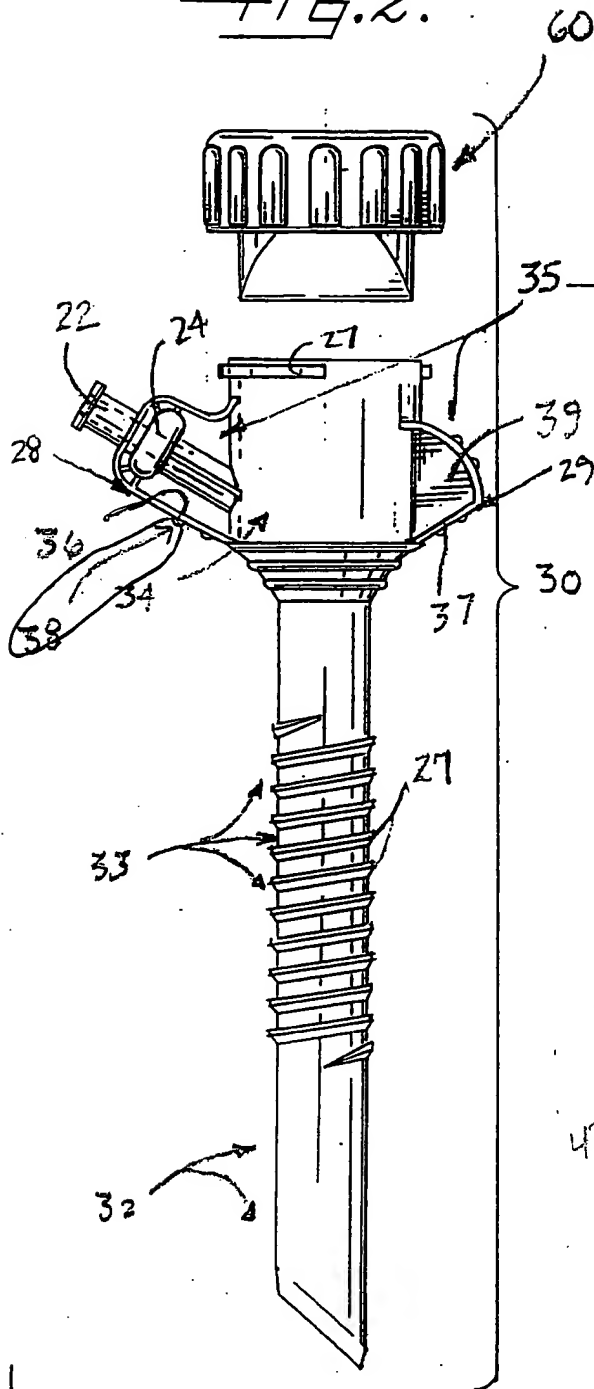
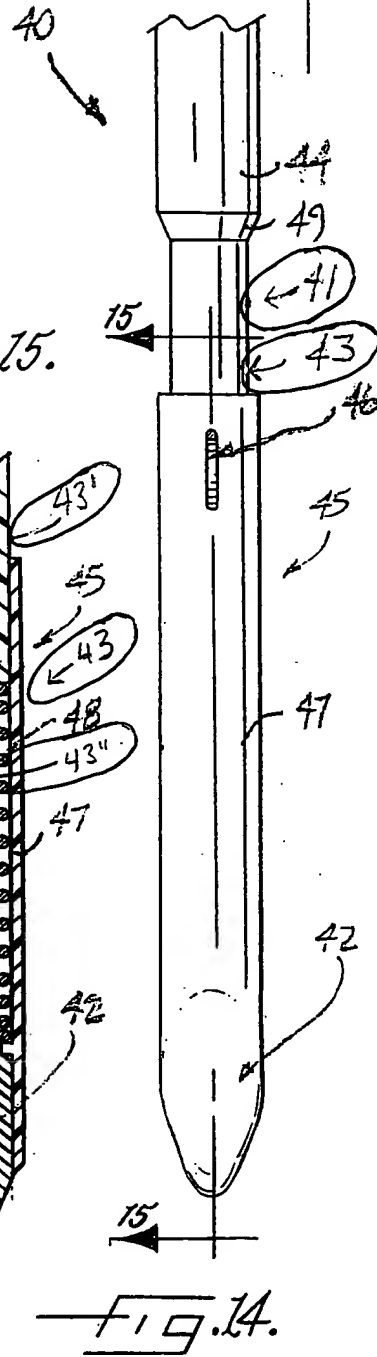
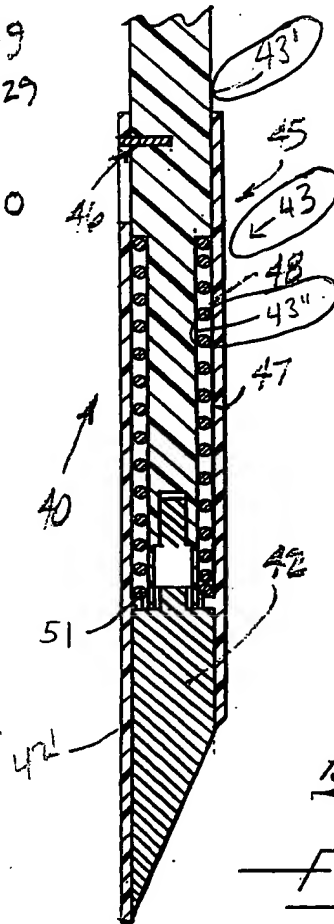


FIG. 15.







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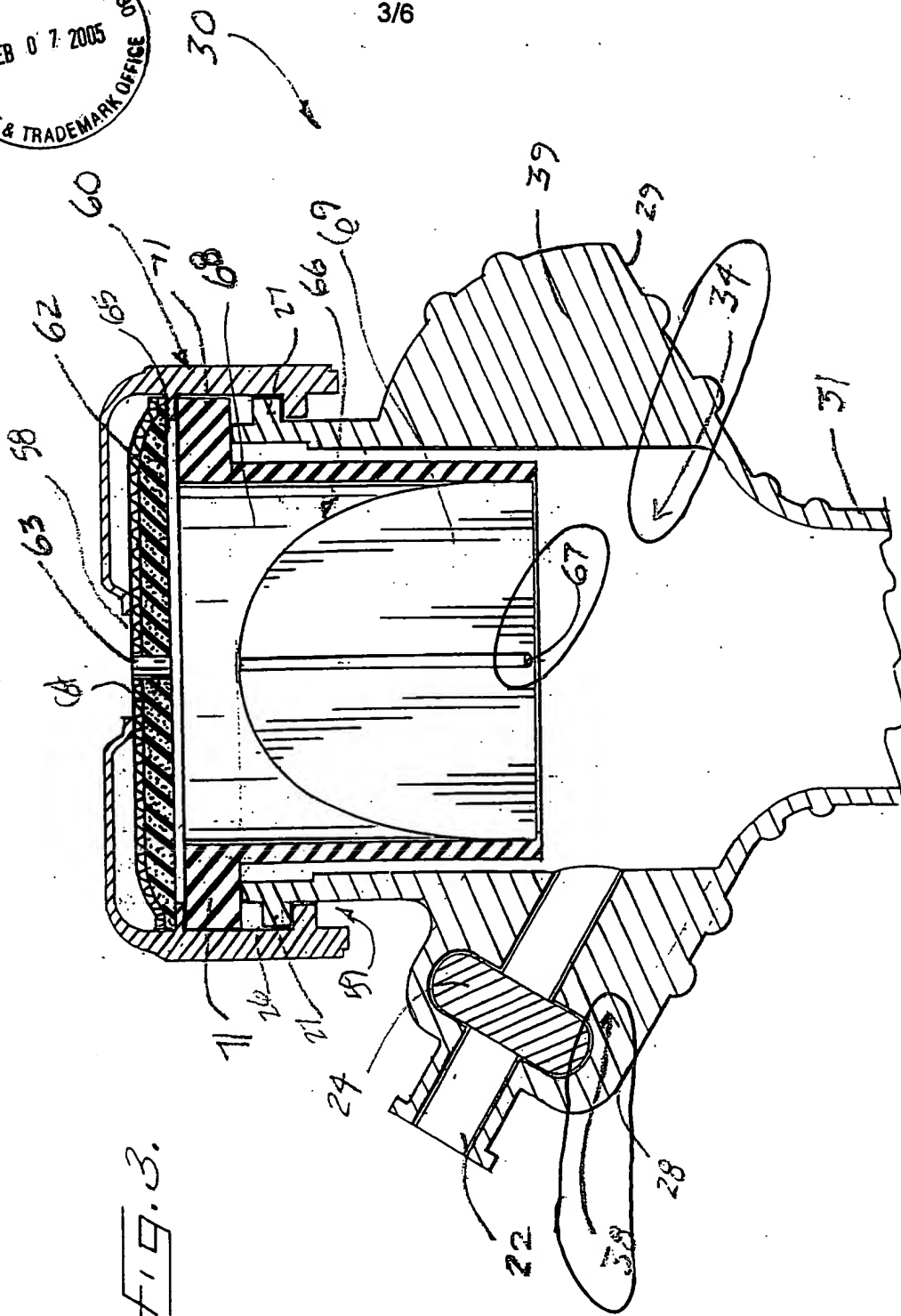


FIG. 3.